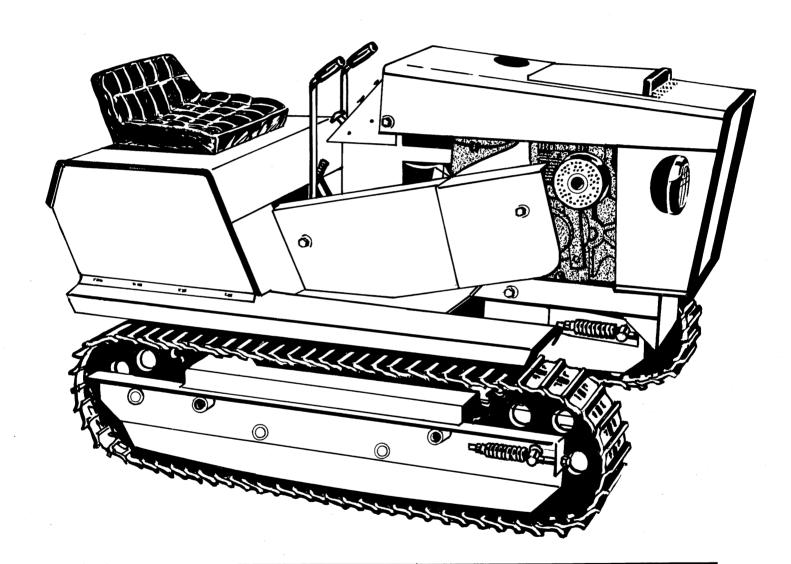


Plans - Assembly Manual

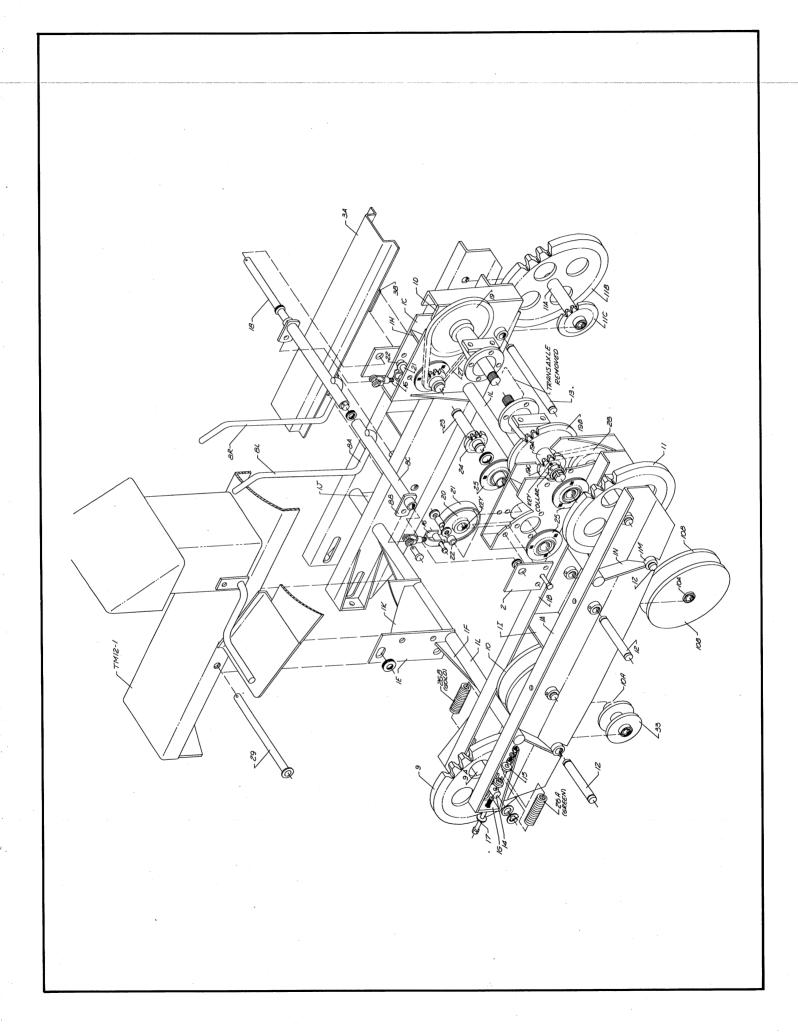


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#### LOWER TRACK FRAME

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MT1800-1 Lower Track Frame
       1A Wall (L&R)
                                               -16 Yoke Assembly w/clevis & pin (2)
       1B Wall (L&R)
                                               -17 Rod (4)
       1C Side (L&R)
                                               -18 Pivot Shaft
       1D Plate (2)
                                               -19 Primary Drive Sprocket Assembly (2)
       1E Support (2)
                                               19A Tube (2)
       1F Angle (8)
                                               19B Sprocket 50A54 (2)
       1G Stop (4)
                                               19C Sprocket 50B16 (2)
       1H Strip (2)
                                               -20 Drum (2)
       1I Gusset (2)
                                               -21 Band (2)
       1J Gusset (4)
                                               -22 Spacer Tube 5/8 OD x 3/8 ID x 7/16 (2)
       1K Plate
                                               -23 Shaft (2)
       1L Tube (2)
                                               -24 Sprocket 50B11 (2)
       1M Collar (20)
                                               -25 Bearing, self aligning (6) two w/collars
       1N Gusset (8)
                                               26A Tension Spring - Green (2)
      -2 Plate (2)
                                               26B Tension Spring - Gold (2)
      -3 Cover Assembly (2)
                                               -27 Roller Chain w/connector (2)
       3A Cover (2)
                                               -28 Roller Chain w/connector (2)
       3B Clip (4)
                                               -29 Rod
       4R Right Fender Assembly
                                               -30 Tracks (2)
       4CR Right Cover
                                               -31 Snap Ring Pliers
       4L Left Fender Assembly
                                               -32 Handgrip 5/8 ID (2)
       4CL Left Cover
                                               -33 Idler Wheel Assembly (4)
       4A Fender (R&L)
                                               33A Flange Plate 4" dia. (8)
                                               10A Tube (4)
       4B Rod (2)
      -5R Right Support Assembly
                                               Key 1/4 sq. x 1 - 2(Red) 4(Plain)
      -5L Left Support Assembly
       5A Rod (2)
                                               Snap Ring 7/8 ("C" type) (24)
                                               Snap Ring 1 ("Ring" type) (7)
       5B Plate (2)
      -6R Right Wall
                                               WI Washer 1 (46)
      -6L Left Wall
                                               WI Washer 3/8 (12)
      -7 Pan
                                               WI Washer 1/2 (4)
                                               WI Washer 7/8 (187)
      -8R Right Steering Lever Assembly
      -8L Left Steering Lever Assembly
                                               Lock Washer 5/16 (22)
       8A Lever (2)
                                               Lock Washer 7/16 (4)
       8B Tab (2)
                                               Lock Nut 5/16-18 (2)
       8C Tube (2)
                                               Lock Nut 3/8-16 (6)
      -9 Front Idler Sprocket Assembly (2)
                                               Nut 7/16-14
                                                                 (8)
       9A Tube (2)
                                               Nut 5/16-18
                                                                 (22)
      11B Sprocket 22 tooth #A550 (2)
                                               Cap Screw 5/16-18 \times 3/4 (22)
      -10 Center Idler Wheel Assembly (4)
                                               Cap Screw 5/16-18 \times 1\frac{1}{2}
                                                                        (2)
      10A Tube (4)
                                               Cap Screw 3/8-16 \times 3/4
                                                                        (4)
      10B Flange Plate 9\frac{1}{2}" dia. (8)
                                               Cap Screw 3/8-16 \times 3
                                                                        (2)
      -11 Rear Drive Sprocket Assembly (2)
      11A Tube (2)
      11B Sprocket 22 tooth #A550 (2)
      11C Sprocket 32 tooth #50 (2)
      -12 Idler Ax1e (8)
      -13 Rear Axle (2)
      -14 Front Ax1e (2)
      -15 Bushing (8)
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#### Assembly Instructions - MAGNATRAC

The Assembly Instructions for your Magnatrac are broken into two separate Assembly Sections. The first section describes the assembly of the Lower Track Frame and it has its own numbering system (designated MT1800) and exploded view drawings. The second section describes the assembly of the Upper Frame and it too has its own numbering system (in this case designated TM12) and exploded view drawings. To avoid any confusion in the two numbering systems and their respective assembly instructions, you must complete the first section (Lower Track Frame - MT1800) completely before going on to the second section (Upper Frame - TM12).

In either case when a part is referred to (such as #1A, #3, etc.) in either the written instructions or the "exploded view" drawings it is taken for granted it is part of the numbering series (MT1800 or TM12) for the particular section you are assembling. In addition if a part is referred to and is not part of the section (Lower Track Frame) or (Upper Frame) you are assembling, it will be designated with its full number; that is: TM12-1A, rather than just #1A

## Unpacking the KIT:

Care must be exercised in unpacking the Kit to avoid bending or scratching the various components. As the parts are unpacked lay them out neatly and check the parts against the enclosed Parts List. Notify us immediately of any shortages.

## Setting up for Assembly:

The directions 'Left & Right' and 'Upper & Lower' referred to in the following instructions are determined by standing behind the Tractor and looking forward. 'Inside' refers to the side of a part which is closest to an imaginary center line running down the length of the "Tractor". 'Outside' refers to the side farthest from the above defined center line.

### MT1800 - Lower Track Frame Assembly

- 1. Remove the five 3/8-16 Cap Screws holding the Transaxle (transmission-differential) to the TM12 Upper Frame. Observe how it was assembled; it will help you with reassembly later.
- 2. Slide one 1" WI Washer over each "axle end" of Transaxle followed by #19 Primary Drive Sprocket Assembly Note: Small #19C Sprocket must be facing outside. Align the 1/4" Keyway of #19C Sprocket with the mating 1/4" Keyway on its respective axle. Insert 1/4" sq. x 1 Hardened Key (painted red on end) into this "aligned" Keyway push Key in so its outside end is flush with outside face of #19C Sprocket and tighten Sprocket's set screw.
- 3. Lower Transaxle into rear of Lower Track Frame making sure the 1-3/4" slots in the #1D Plates fit around the #19A Tubes of each #19 Sprocket Assembly and that the #1D Plate is between its respective #19B and #19C Sprockets on each side.
- 4. Slide the #25 Bearing's locking collar over each axle end keep the "grooved" end of the collar which "mates" with the hub end of the #25 Bearing to the outside. Form two #25 Bearing assemblies by placing the #25 Bearing "cartridge" between its two respective stamped steel "shells".

- 5. Take each #25 Bearing assembly and slide it (hub end first) over its respective axle end making sure to engage the hub end of the Bearing into its mating groove of its already mounted locking collar  $\underline{\text{NOTE}}$ : The collars are locked by rotating them; as you do the above assembly, rotate the collars only enough to engage the groove of the collar into the hub of the Bearing. Don't lock the collar at this time; rather rotate it so #25 Bearing can slide freely on axle. Using  $5/16-18 \times 3/4$  Cap Screws and Nuts (no lock washers) mount each #25 Bearing to its respective #1C Side. Tighten Cap Screws.
- 6. At this point the Transaxle should be suspended in the Lower Track Frame and held in place only by a #25 Bearing on each axle end. Check that both locking collars are engaged on their respective Bearing hubs and that they haven't been rotated (locked)—the Transaxle should still be able to slide freely from left to right.
- 7. Center the Transaxle in the Track Frame so that an even amount of axle is protruding from the #25 Bearing on both the left and right side. Take a few 1" WI Washers and stack them together to determine how many it will take to "shim" the distance between the inside face of the #25 Bearing locking collar and the outside face of the #19C Sprocket. (NOTE: Add only the Washers you really need too many Washers will cause undue side pressure on the Bearings). Because the Washers are thin it is acceptable if one side has one less Washer than the other.
- 8. Remove the #25 Bearings on each side and install the Washers determined above in Step #7. Rebolt the Bearings in place, this time using Lock Washers next to the head of each  $5/16-18 \times 3/4$  Cap Screw. (In this assembly check that the Transaxle can move freely approximately 1/32" left or right collars are still not locked! If no movement is possible then you must remove one excess Washer and reassemble.)
- 9. Take 1" Washers and "shim out" remaining end of each axle and secure with 1" Snap Ring use special #31 Snap Ring Pliers provided. Using a hammer and drift pin (or similar punch) rotate the locking collars of each #25 Bearing "forward" and lock in place with set screw on each collar.
- NOTE: The Lower Track Frame is actually composed of two similar "track units" which are linked together by two 1-5/16" dia. bars. The following instructions will detail the assembly of various component assemblies on one side of the Lower Track Frame; it is to be understood that once a particular assembly is completed on one side of the Track Frame it will be immediately duplicated in a similar manner on the other side of the Track Frame before going on to the next assembly step.
- 10. Take #11 Rear Drive Sprocket Assembly and per the drawing slip this "unit" up into the lower rear of the Lower Track Frame making sure the large #11B Sprocket is between the #1A & 1B Walls and the smaller #11C Sprocket is into the "box" formed by #1C Side & #10 Plate. Align the #11A Tube of the Sprocket Assembly with the 7/8" "collared" holes in #1D Plate and #1A Wall insert #13 Axle through all.
- 11. By sliding the #11 Sprocket Assembly left or right, line up the "centerline" of #11C Sprocket with its mating #19C Sprocket above. Next determine how many 7/8 WI Washers are necessary on each end of the #11A Tube to hold this "centered" position. Remove the #13 Axle, insert the Washers (determined above) and replace the #13 Axle. Center the Axle in this assembly, shim out the protruding ends of the Axle with 7/8 WI Washers and secure with 7/8 Snap Rings on each end. Tighten set screws in both collars. Take #28 Chain & wrap it around #11C and #19C Sprockets secure with Connector Link.

- 12. Form two #25 Bearings by placing bearing "cartridges" between stamped "shells". Insert  $5/16-18 \times 3/4$  Cap Screws (with lock washers next to each head) into each of the three 5/16 sq. holes in one of the (above) #25 Bearing assemblies. Check drawing and insert this into the remaining "hole cluster" in the #1C Side. On the inside secure with 5/16-18 Nuts, but leave loose enough so that Bearing cartridge may swivel within the stamped shells protruding hub of Bearing must point inward.
- 13. From the inside, insert three  $5/16-18 \times 3/4$  Cap Screws into the remaining 5/16 holes in #1D Plate the Screw ends should point out of the #1D Plate and toward the Tractor's centerline. Take the second #25 Bearing assembly and mount it on the three (above) protruding Cap Screws and secure loosely with 5/16-18 Nuts & Lock Washers. NOTE: Check drawing, make sure that the hubs of both mounted #25 Bearings are facing each other.
- 14. Take #23 Brake Shaft and slide it through the "bore" of the two mounted #25 bearings. On the outside slip one 1" WI Washer over the end of #23 Shaft and secure outside with 1" Snap Ring use special pliers provided. Tighten the six  $5/16-18 \times 3/4$  Cap Screws holding the two (above) #25 Bearings in place.
- 15. Slip the large "yoke" end of #16 Yoke Assembly around one of the "loop ends" of #21 Brake Band and secure with  $5/16-18 \times 1\frac{1}{2}$  Cap Screw & Lock Nut. (NOTE: Don't overtighten Nut, the Band should be able to swivel slightly in the #16 Yoke. Take #20 Brake Drum and slip it into the above Brake Band & Yoke Assembly. Insert 1/4 sq.  $\times 1$  Key into keyway of Drum rotate Drum so key is at the bottom (or 6 o'clock position.) NOTE: Hub of #20 Drum must be facing out check drawing.
- 16. Partially slide out #23 Shaft so that the interior space between the two aligned #25 Bearings is open. (If the Shaft is bound tight, slightly loosen the  $5/16-18 \times 3/4$  Cap Screws to free it.) Note drawing and lower the Brake Band & Drum Assembly in between the two #25 Bearings and align the Drum's bore with the bore of the two Bearings. Slide the #23 Shaft back into the assembly, this time rotating it slightly so that its Keyway will engage the 1/4 sq. x 1 Key already inserted in the #20 Drum. When Key & Keyway are aligned slide the Shaft through the Drum and all the way into the second Bearing. (Tighten all  $5/16-18 \times 3/4$  Cap Screws you may have loosened.)
- 17. Insert a  $3/8-16 \times 3$  Cap Screw into the center 3/8 hole of the three 3/8 hole cluster of #2 Plate. Pass this Cap Screw into the center 3/8 hole of the three 3/8 hole cluster on the top front of #1C Side. On the inside of #1C Side slip a #22 Spacer Tube over the "inward protruding"  $3/8-16 \times 3$  Cap Screw. Using 3/8 WI Washers as shims on each side of #21 Band (and thereby centering it on #20 Drum) pass the Cap Screw through the remaing "loop" of #21 Band and into the remaining 3/8 hole of #1D Plate. Secure on the outside with 3/8-16 Lock Nut tighten, but do not over tighten and crush #1C & 1D inward; Band must be able to still rotate slightly. (NOTE: Check drawing and check assembly 5/8 hole in #2 Plate must be toward the rear.) Insert  $3/8-16 \times 3/4$  Cap Screws through the two remaining 3/8 holes in #2 Plate and through the mating holes in #1C Plate secure inside with 3/8 Lock Nuts.
- 18. Over the inside protruding end of #23 Shaft slip on #24 Sprocket hub pointing at Transaxle. Align it with #19B Sprocket mounted on Transaxle Axle. Determine how many 1" WI Washers are required between the "face" of the #24 Sprocket and the "face" of the #25 Bearing to hold the (above) alignment. Remove #24 Sprocket, insert Washers (determined above), slip #24 Sprocket back on followed by 1/4 sq. x 1 Key and sufficient 1" WI Washers to "shim" out Shaft and secure with Snap Ring.
- 19. Take remaining #27 Chain and wrap around #24 and #19B Sprockets secure with Connector Link.

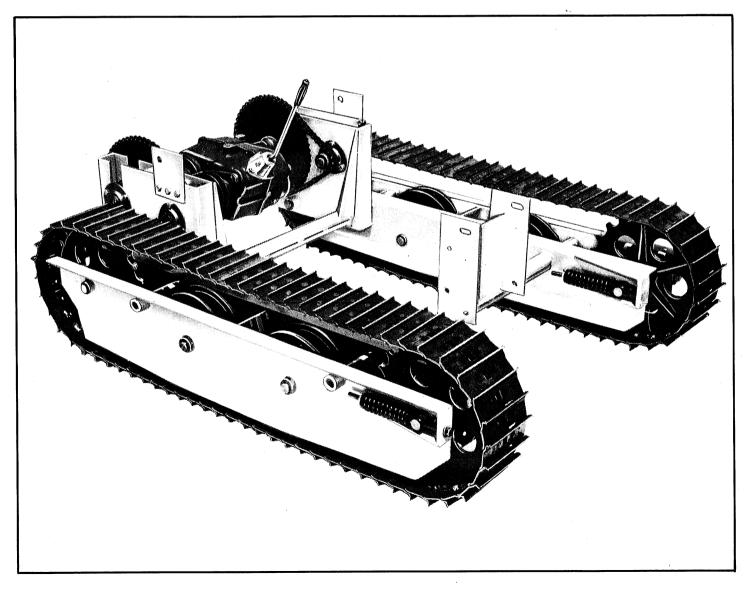
- 20. Slide #9 Front Idler Sprocket Assembly between the inside front ends of #1A and 1B Walls. Slide #14 Front Axle through 7/8 slot in #1A Wall, then through #10A Tube portion of #9 Sprocket Assembly, and finally through 7/8 slot in #1B Wall. Slide #14 Axle to rearward (end) of slots in #1A & 1B Walls. Using the already assembled #11B Rear Sprocket as a starting point locate the #9 Sprocket on a common "centerline" with the Rear Sprocket. (NOTE: The common centerline between the two Sprockets will be parallel to #1A & 1B Walls, therefore use the same number of 7/8 WI (shim) washers between the outside end of #10A Tube and the inside of #1A Wall as you used between the outside end of #11A Tube and inside of #1A Wall in Step #11 above.)
- 21. Determine how many 7/8 Washers would be required on each side of the #10A Tube portion of #9 Sprocket Assembly to hold the above alignment -- check "NOTE" above. Remove #14 Axle, insert Washers (determined above) and reinsert Axle. Center Axle so that equal portions of #14 Axle protrude from #1A & 1B Walls. Shim Axle ends out even with snap ring groove and secure on each side with 7/8 Snap Ring -- don't over shim; Axle must be able to slide forward and back in its slots.
- 22. <u>NOTE</u>: Whenever the following instruction refers to a #26 Spring, use the #26A (Green) Spring on the outside (the #1A Wall is on the outside) and use the #26B (Gold) Spring on the inside (the #1B Wall is on the inside). Refer to the Operator's Manual for final Track Spring adjustment.
- Slide a 1/2 WI Washer over end of each #17 threaded Rod. Insert threaded end of a #17 Rod into its respective 1/2" hole in #1G Stop on each side of #9 Idler Sprocket. Pass Rod through its respective 1/2" hole in end of #14 Axle and follow in order with #15 Bushing, #26 Spring, #15 Bushing, 7/16-14 Nut, 7/16 Lock Washer and finally a 7/16-14 Nut. (NOTE: Check drawing to make sure that you have (above) parts in the proper order and that the respective #15 Bushings are pointing in the proper direction).
- 23. Take #10 Idler Wheel Assembly and from below insert it up into its position between #1A & 1B Walls NOTE: You must tilt the Wheel to get it to pass up into its position. From outside insert #12 Axle in "collared" 7/8 hole in #1A Wall and engage #10A Tube of #10 Wheel Assembly and pass through it and into "collared" 7/8 hole in #1B Wall on opposite side.
- 24. Center the #10 Wheel on the "common centerline" between the #9 & #11 Sprocket as determined in Step #20. Determine how many 7/8 WI Washers are needed on each end of #10A Tube to hold the (above) alignment. Remove #12 Axle, insert the Washers determined above and reinsert #12 Axle. Center Axle, shim out each end of Axle with 7/8 WI Washers up to groove on each end, then secure with 7/8 Snap Rings on each end. Lock Set screws in all collars.
- 25. Take #33 Idler Wheel Assembly and from below insert it up into its position between #1A & 1B Walls (per drawing). From outside, insert #12 Axle in "collared" 7/8 hole in #1A Wall and engage #10A Tube of #33 Wheel Assembly and pass through it and into "collared" 7/8 hole in #1B Wall on opposite side.
- 26. Center the #33 Wheel on the "common centerline" between #9 and #11 Sprocket as determined in Step #20. Determine how many 7/8 WI Washers are needed on each end of #10A Tube to hold the (above) alignment. Remove #12 Axle, insert the washers determined above and reinsert #12 Axle. Center Axle, shim out each end of axle with 7/8 WI Washers up to groove on each end, then secure with 7/8 Snap Rings on each end. Lock set screws in all collars.

- 27. NOTE: Using a pressure type grease gun and a good grade of general purpose grease, lubricate all "zerk" fittings in your assembled unit -- zerk in each of the  $\frac{\#9}{}$  Front Idler Sprockets, zerk in each of the  $\frac{\#11}{}$  Rear Drive Sprockets, and lastly zerk in each of the  $\frac{\#12}{}$  Idler Axles. As this is the first time you will be greasing the bearings, do not be alarmed at how much grease they take, inasmuch as you are filling all the voids in the bearing assemblies for the first time make sure you have the bearings all fully greased. Subsequent lubrication should take much less grease and should be done at least twice a day somewhat more often if you're working in extremely wet, gritty or muddy conditions.
- 28. Mount the #3 Cover Assembly (over the two center mounted #10 Idler Wheels) by sliding the two grooves (formed by the "lip" of the #3A Cover & #3B Clips) around the horizontal edge of the #1B Wall. Align the two 5/16" holes on the opposite edge of the #3A Cover with its mating two 5/16 holes in the horizontal edge of the #1A Wall. Secure Cover with  $5/16-18 \times 3/4$  Cap Screws, Lock Washers and Nuts.
- 29. Unroll a #30 Track and form it into a circle. NOTE: "Cleats" must be pointing outwardly from the "circle's" center. Join the two ends of the Track with the "cleated" Connector Link. Align the holes in the ends of the Track with the holes in the Connector Link insert special Pins into each of these two "aligned" holes tap the heads of these Pins until they are seated against the "face" of the Connector Link. Support the "heads" of these pins with a steel block and on the opposite side "peen" over the protruding ends of the two Pins with a ballpeen hammer or similar tool. Take your time and do a neat job of forming a rivet head NOTE: Peen the end of the Pin until it forms a "mushroom end" which will keep the Pin from backing out; also after peening the total length of the Pins cannot exceed 1-3/8" (it needs this clearance width to fit into the groove in the #10 & #33 Idler Wheels.) Join both Tracks this way.
- 30. With the #9 Front Idler Sprockets pushed back as far as possible, loop the #30 Tracks over their respective #9 Front Sprocket and #11 Rear Sprocket engaging the Sprockets' teeth in the Track's chain at the same time the Track's chain "links" should fall between the #10B Flange Plates of each #10 Idler Wheel and the #33A Flange Plates of each #33 Idler Wheel. (NOTE: Mount the #30 Track so that the gripping edge of the "track shoe" is forward note drawing.)
- 31. Using the #17 Threaded Rods and the 7/16-14 Nut closest to the #15 Bushing, begin to tighten the Spring Tension Assemblies mounted on each side of #14 Front Axle which you assembled in Step #22. Tighten each Spring Assembly so that you draw each end of the #14 Axle 1/4" forward at a time don't tighten the Spring Assembly on one side completely before tightening a like amount on the other side. Again, work back and forth tightening the Spring Assembly (on each side of the #14 Axle) only enough to draw each end of the Axle 1/4" forward at a time. Continue this until the #30 Track appears taut.
- 32. Tighten the "outside" #26 Spring Assembly (the one closest to the #9 Front Sprocket) until the #26 Spring is 3-5/8" long length of Spring only; do not include the two #15 Bushings in your measurement! At this time measure the distance "X" as shown in the drawing. (This is the distance between the forward end of the slot in #1A Wall and the forward edge of #14 Axle). Return to the Spring Assembly on the other end of this same #14 Axle (the "inside" Spring Assembly) and tighten it until its respective "X" distance (the distance between the forward end of the slot in #1B Wall and the forward edge of the other end of the same #14 Axle) is the same as that determined above.

When properly adjusted the #26 Spring on the "inside" end of #14 Axle should be longer than the 3-5/8" length you set on the outside #26 Spring -- NEVER are the two #26 Spings (those on each end of a single #14 Axle) to be the same length! Proper tensioning of the #30 Track requires that the #14 Front Axle and the #13 Rear Axle are always parallel to each other; in addition, the "outside face" of the #9 Sprocket should be parallel to the "inside face" of #1A Wall.

33. Lock each of the #17 Rods in position by tightening the second 7/16-14 Nut & Lock Washer against the first 7/16-14 Nut. (NOTE: Tighten the second Nut while holding the first Nut with a wrench - the first Nut must not turn or it will change your Spring Assembly adjustment.) It is understood that after you make the (above) Track Tensioning adjustment (steps #30 - 33) you will go to the other side of the Tractor and make the same adjustment to the other #30 Track.

NOTE: At this point all of the mechanism of the Lower Track Frame has been installed. Again, to repeat the statement made before you began this assembly: all the assembly steps (above) referred to assembly of a specific part or a specific side of the Tractor; but it was understood that you would repeat this assembly again where ever this part appeared - hence the assembly instructions for the Brake Assembly referred to assembling both Right & Left Brakes, the installation of the #11 Rear Drive Sprocket Assembly referred to installation of both Rear Drive Sprockets, and so on. Now is an excellent time to go over your complete assembly and check for errors in alignment, parts put in upside down or backward, etc.

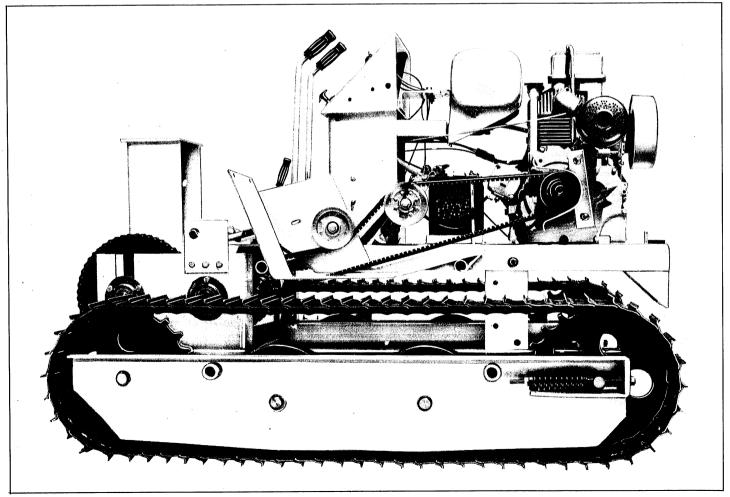


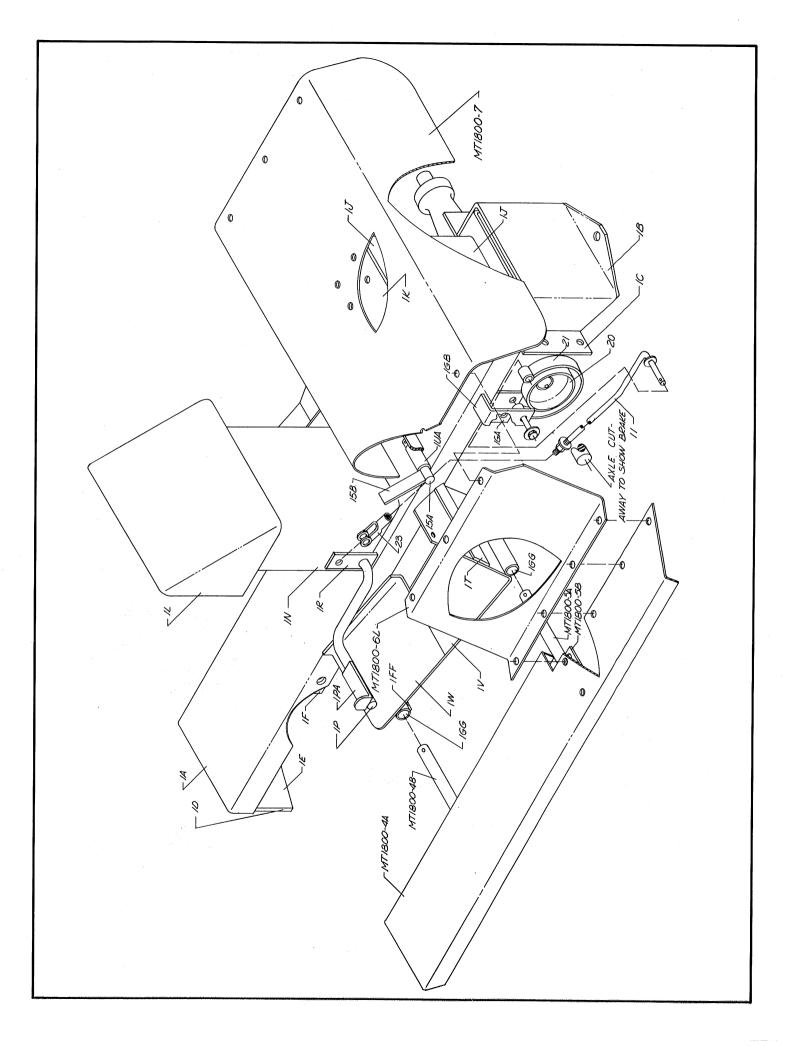
# UPPER FRAME

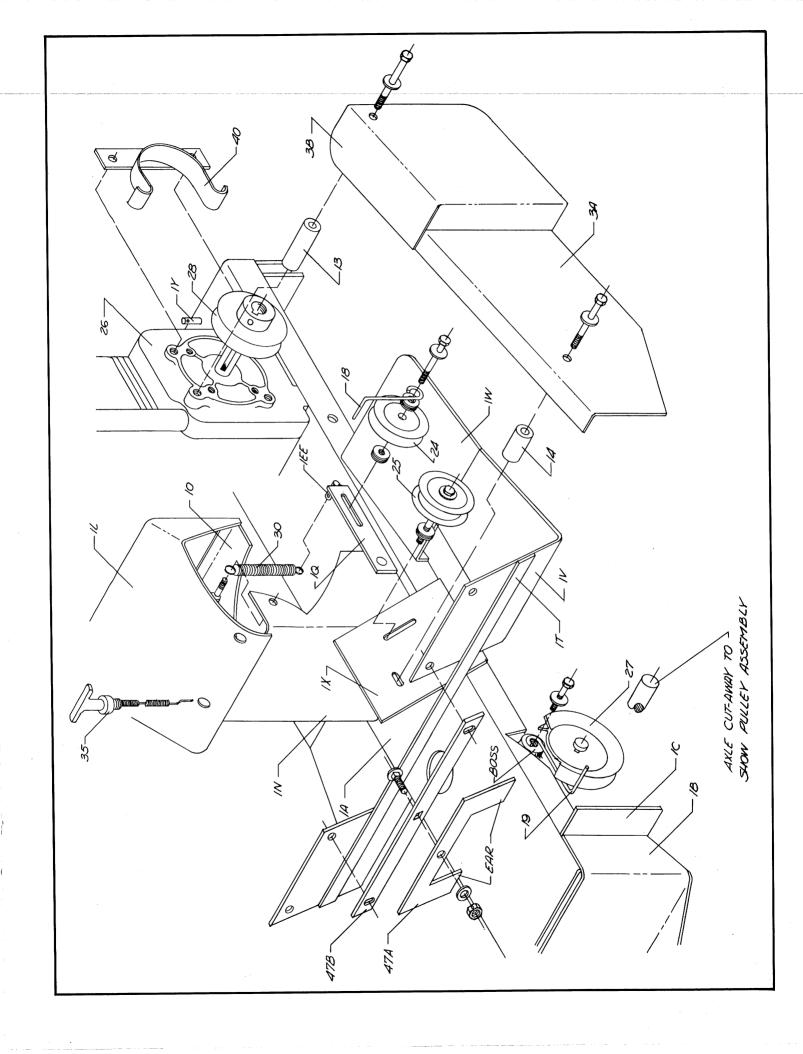
TM12-1 Upper Frame Assembly	-23 Clevis w/pin
1A Channel	-24 "V" Idler, 4" x 3/8 bore
1B Hitch	-25 Flat Idler, 4" x 3/8 bore
ICA Plate (2)	-26 Engine
1D Brace	-27 Pulley, 5" x 3/4 bore
lE Angle (2)	-28 Pulley, $3\frac{1}{2}$ " x 1 bore
1F Bearing (4)	-29 Belt
1GA Plate	$-30$ Spring, 5/8 dia. x $9\frac{1}{2}$
lGB Bracket	-32 Transax1e
1GC Brace	-35 Throttle Control
1J Support	-36 Choke Control
1K Rest	-39 Seat Pan
1L Dash ( $w/o$ 1-5/16 s1ot)	-40 Belt Release
1N Tower	40A Plate
10 Gusset	40B Loop
1P Peda1	-41 Interlock Switch (w/nuts & boot)
1Q Arm	-42 Solenoid
1R Arm	-43 Gas Tank (w/bracket)
1S Box	-44 Gas Hose
1T Bar	-45 Rubber Strip
1UA Tube	-46 Leaf Spring
1V Floor (R&L)	47A Plate
1W Rest (R&L)	47B Bar
1X Guard	-51 Start, Stop Switch
1Y Pin	-52 Ammeter
1AA Bracket	-54 Light Switch (*)
1BB Brace	-55 Sealed Beam Light (2) (*)
1DD Clip	-56 Light Mounting Hardware (2)
1EE Pin	-57 Strip
1FF Bar (2)	-58 Battery
1GG Tube (4)	-59 Wire (Heavy Black) $10\frac{1}{2}$ "-1/4" Loop each
-2 Hood	end.
2A Top	-60 Wire (Heavy Black) 15"-1/4" ID and
2B Side (L&R)	5/16" ID Loop ends.
2C Bottom	-61 Wire (Heavy Black) 13-1/4" - 1/4" ID
2D Gri11	and 5/16" ID (attached to #64 Wire)
2E Plate	and the control of t
2F Scoop	Loop ends66 Wiring Assembly:
2G Screen	63 (Black) 5" - #10 ID Loop end - other
-3 Guard	end in Starter Plug Connector
3A Channel	64 (Black) 22" - 5/16 ID Loop attached
3B Cover	to #61 Wire - other end in Starter
-11 Rod	Plug Connector
-13 Tube	65 (Red) 19" - Push Clip end - other end
-14 Tube	in Starter Plug Connector
-15 Parking Brake	66B (Yellow) 16½" - one end in Starter
15A Pin	Plug Connector - other end in Engine
15B Latch	Plug Connector
-18 Guide	
-19 Guide	66D (Red) 16" - #10 ID Loop end - other
-20 Drum	end in Engine Plug Connector
-21 Band	-67 Wire (Yellow) 6-3/4" - #10 ID Loop &
- 7T Daim	Push Clip ends.

98 Mile (Bine) 132, A	/ruse (^)
69 Wire (Blue) 22½" P	
	ent interlock
circuit only	
70 Wire (Blue) 15½" (	*)
Electrical Connector	3/8" (1) (*)
Electrical Connector	
Electrical Tape	(1) (*)
Note; (*) included in	Light Kit only!
Key $1/4$ sq. x $1-1/8$	(1)
Woodruff Key #9	(1)
	(2)
	(47)
WI Washer 3/8	(36)
WI Washer 5/8	(30)
Lock Washer 5/16	(17)
Lock Washer 3/8	(10)
Lock Nut 1/4-20	(6)
Lock Nut 5/16-18	(8)
Lock Nut 3/8-16	(6)
	(2)
Wing Nut 5/16-18	(2)
Nut 5/16-18	(17)
Nut 3/8-16	(8)
Nut - Flange 5/16-24	(1)

Cap Screw $1/4-20 \times 3/4$	(6)
Cap Screw $5/16-18 \times 3/4$	(20)
Cap Screw $5/16-18 \times 1$	(4)
Cap Screw $3/8-16 \times 3/4$	(3)
Cap Screw $3/8-16 \times 1$	(5)
Cap Screw $3/8-16 \times 1-3/4$	(1)
Cap Screw $3/8-16 \times 2\frac{1}{2}$	(1)
Cap Screw $3/8-16 \times 2-3/4$	(1)
Cap Screw $3/8-16 \times 3$	(1)
Cap Screw $3/8-16 \times 5$	(1)
Cap Screw $1/2-13 \times 1$	(2)
Press Pin $1/8 \times 1/2$	(1)
Cotter Pin $1/8 \times 1$	(2)
Handgrip 1/2 ID	(1)
Edging	
Hitch Pin (#14)	(5)
Hitch Pin (Small)	(2)
Gas Hose Pinch Clips	(2)
Allen Wrench 1/8"	(1)
Allen Wrench 5/32"	(1)
Wire Clip, "coated"	(1)







# TM 12 - Upper Frame Assembly

- 1. Remove four Cap Screws holding Engine to #1 Frame. Slide 3/8 WI Washer over end of 3/8-16 x 1 Cap Screw and insert into "loop" of #19 Belt Guide. Engage Screw into threaded "Boss" on Right side of #32 Transaxle above and forward of 3/4" shaft. Take #1 Frame Assembly and lower it over your previously assembled Lower Track Frame. Align the #1C Plates with their mating "mounting pads" cast into the rear axles of the Transaxle case. (NOTE: As you lower the #1 Frame, check that you have entered and passed through the Transaxle's shift lever into the 2-3/8" hole in the underside rear of the #1A Channel.
- 2. The front end of the #1A Channel should "nest" around the two MT1800-1E Support "uprights". Center this Channel over the Supports and determine how many 5/8 WI Washers are necessary between the MT1800-1E Support and the #1F Bearing on each side to hold this position. Slide #29 Rod through the 5/8 hole in #1A Channel and its respective #1F Bearing, through the 5/8 WI Washers (determined above) and into the 5/8 x 1-1/4 slot in the first MT1800-1E Support. Continue to pass the #29 Rod through and enter the second Support, the balance of the 5/8 Washers, and finally pass into the #1F Bearing and #1A Channel. Secure Rod on outside with Hitch Pin. (NOTE: The amount of "shimming" done should be sufficient to take the "side-play" out of the Upper Frame, but at the same time not so tight as to have the Frame "bind".
- 3. Using  $3/8-16 \times 1-3/4$  Cap Screws, Nuts & Lock Washers, mount the #1C Plates (welded to #1 Frame) to the "mounting pads" of the Transaxle tighten all Cap Screws.
- 4. Insert  $3/8-16 \times 2-1/2$  Cap Screw into 3/8 WI Washer and then into 3/8 hole of #1GB Bracket; inside slip on two 3/8 WI Washers followed by one "loop end" of #21 Brake Band and secure with 3/8-16 Lock Nut. (NOTE: As you tighten Lock Nut the threaded end of Cap Screw will enter the remaining 3/8 hole in #1GA Plate; also, just "snug" Lock Nut, do not crush loop of Brake Band).
- 5. Screw Flanged Nut onto the threaded end of #11 Rod (flange side of Nut first) followed by #23 Clevis and insert remaining end of #11 Rod into "loop" end of #21 Brake Band. Secure on outside with 5/16 WI Washers and  $1/8 \times 1$  Cotter Pin. (Check Drawings and Photos for proper relationship of Band, Drum, and Pull Rod). Center #20 Brake Drum on #21 Brake Band and tighten set screw.
- 6. Insert #15A Pin of Parking Brake into left side of #1UA Tube and secure on other side with  $1/8 \times 1/2$  Press Pin press in only 1/4".
- 7. Remove Cotter Pin and Pivot Pin from #23 Clevis. Slide Clevis onto #1R Arm and align 5/16 hole in Clevis with 5/16 hole in #1R Arm. Insert Pivot Pin through all 5/16 holes. Secure with 1/8 x 1 Cotter Pin. Rotate #15B Parking Brake Latch forward so that it lays on top of Flange Nut. By screwing the Flange Nut and #23 Clevis "on or off" of #11 Rod adjust the Rod so that firm pressure on #1P Pedal will tighten the Brake Band and at the same time allow the #15B Latch to drop behind the flanged side of the Flange Nut and hold the tractor in a braked position (the Flange Nut should be screwed tight against #23 Clevis). An extra firm pressure on the Pedal will release the pressure on the Latch so that it may swing up and back and allow the #1P Pedal to come back into an operating position check the adjustment of this #15B Latch periodically as the Band will stretch and wear over a period of time; screw the Flange Nut and #23 Clevis further on the #11 Rod to tighten the Brake as wear makes this adjustment necessary.

- 8. Mount #26 Engine over cluster of four 3/8 holes on top side of #1 Frame. Place 3/8 Lock Washers over each of four 3/8-16 x 1 Hardened Cap Screws (previously removed in Step 1) and from below Frame insert the four Screws into their respective 3/8 holes in frame and engage the threaded holes in the Engine above tighten.
- 9. Slide 3/8 WI Washer onto end of 3/8-16 x 1-3/4 Cap Screw. Insert Cap Screw into 3/8 hole in #25 Flat Idler and slide on six more 3/8 Washers. Insert this assembly into long vertical slot in #1X Guard and secure on other side with 3/8 Washer and 3/8-16 Nut leave loose.
- 10. Slide 3/8 WI Washer onto 3/8-16 x 2-3/4 Cap Screw and insert into "loop" of #18 Belt Guide. (NOTE: "hooked" end of #18 Guide should be pointing in same direction as Cap Screw threads). Slide on five more 3/8 Washers and insert into #24 "V" Idler followed by seven more 3/8 Washers. Insert complete Idler Assembly into slot in #1Q Arm and secure on other side with 3/8 Washer and 3/8-16 Lock Nut pull Idler Assembly to end of slot and tighten.
- 11. Insert  $3/8-16 \times 3/4$  Cap Screw into one "loop" end of #30 Spring and insert (from inside #1N Tower) in 3/8 hole in tower. Secure outside with 3/8-16 Lock Nut, but allow Spring some freedom to rotate. Slip other end of #30 Spring over end of #1EE Pin (welded to end of #1Q Arm). Secure with Hitch Pin.
- 12. Insert "Cable" end of #35 Throttle Control through 9/16" hole in left of #1L Dash. Slide its original Nut and Lock Washer up Cable and secure Control from behind Dash. Run cable end of Control along left side of Engine and slip into Bowden Wire Clamp on Engine housing. Engage "offset" end of Cable Wire into hole on Engine throttle lever. (Note Drawing) With #35 Throttle Control on Dash pushed in, throttle on Carburator should be closed and resting against idle adjustment screw tighten Bowden Wire Clamp. Pulling Throttle Control on Dash out, should open Throttle completely giving the Control a 1/4 turn clockwise should lock the Control at that setting.
- 13. Insert Cable end of #36 Choke Control through 9/16" hole in right of #1L Dash. Slide original Nut and Lock Washer up cable and secure Choke Control from behind Dash. Run cable end forward along right side of Engine and slide into Bowden Wire Clamp mounted on "Angle Clip" bolted to Engine Head. Engage "offset" end of cable wire into hole on Choke Lever above Carburator. (NOTE: Don't use hole in middle of Arrow). Again, with Choke Control on Dash pushed completely in, the Choke Lever should rotate toward the Air Cleaner and stop. At this point, tighten the Bowden Wire Clamp. Check Choke Control pulling Choke Control should rotate Choke Lever so that it stops at a point perpendicular to the Engine Crankshaft.

## 14. Assembly for Electric Start and Lights:

 ${\underline{\tt NOTE}}\colon {\mathtt{Before}}\ {\mathtt{assembly}}\ {\mathtt{read}}\ {\mathtt{these}}\ {\mathtt{instructions}}\ {\mathtt{thoroughly}}\ {\mathtt{as\ improper}}\ {\mathtt{assembly}}$  may lead to damage of the electrical system.

- A. Mount #51 (Stop-Start) Switch (furnished in Tractor Kit) into 5/8 hole of upper right corner of #1L Dash. Mount from below, keep lock washer behind Dash and secure on top with nut.
- B. Mount #54 (Light) Switch in 3/8 hole in upper left corner of #1L Dash. Mount from behind Dash; keep nuts one on either side of Dash and try to keep threaded portion of Switch from protruding above nut on top side.

- C. Mount #52 Ammeter from outside of #1L Dash into 2-1/8 hole (top center of Dash). Secure (behind Dash) by slipping the "Yoke" assembly over two screw ends protruding from rear of Ammeter. Screw securely one nut over each screw end. (NOTE: Check that plastic insulators are properly installed in "Yoke" assembly and that the (above) two nuts touch only these insulators and don't make metal to metal contact with any portion of the "Yoke").
- D. Slip #46 Spring over #1P Pedal Rod and align Spring's 1/8" hole with mating hole in Pedal rod. Insert  $1/8 \times 1$  Cotter Pin into aligned holes and clinch cotter pin below. (Check #46 Spring's assembly against drawing Spring must "wrap around" the #1P Pedal from the top around to the bottom.)
- E. Insert threaded end of #41 Switch (a single nut should already be mounted half way down the threaded stem) into 5/8" hole in #1DD Clip and secured from below with Nut provided. (NOTE: Keep terminals of #41 Switch pointing upward).
- F. Mount #42 Solenoid against inside right wall of #1N Tower keep dimpled end forward. Secure with  $1/4-20 \times 3/4$  Cap Screws, Washers & Lock Nuts.
- G. Take #60 Wire and connect one 1/4" loop end to Starter terminal on Engine and the other end to the "top" 5/16 terminal on #42 Solenoid. Take 5/16 ID loop terminal (one with both the #61 and #64 Wires coming out of it) and connect it to the lower (underside) terminal on #42 Solenoid.
- H. Connect the 2 prong Square Female Plug of #66 Wire Assembly with the mating male plug (double lead) found protruding from alongside Starter on Engine. (NOTE: The #66D Red wire and the red wire from the Engine should align with each other in the plug.) Connect the 5 prong female plug on other end of #66 Assembly to the five protruding prongs of #51 (Stop-Start) Switch.
- I. Slip the loop of the center lead (#66D) of #66 Harness Assembly over the (+) protruding screw of #52 Ammeter follow this with a 3/16 ID loop from #62 Wire and secure with lock washer and nut provided with Ammeter. Connect the other end of #62 Wire to one terminal of #54 Switch. ( $\underline{NOTE}$ : #62 Wire with Light Kit only). Connect one 3/16" ID loop end of #63 Wire to remaining protruding screw of #52 Ammeter and secure with lock washer and nut.
- J. To install Light Kit: Open the #56 Light Bracket Package. Take 5/16-18 x 1" Carriage Bolt and insert into the 5/16 sq. hole of #56 Light Mounting Bracket. (NOTE: The Bracket's "two ears" should point up, while the Carriage Bolt points down). Insert into the 3/8" hole on one front side of Tractor's #2B Side (Hood). Inside Hood secure with 5/16-18 Nut and Lock Washer. Insert the "loop" end of #55 Sealed Beam Light Assembly between the "two ears" of the (above) mounted Bracket secure with 5/16-18 x 2 Cap Screw, Lock Washer and Nut. Clean 1/2" of insulation from wire coming out of each #55 Light and insert Wire into hole behind Light Bracket (insert Grommet first.)
- K. Clean 1/2" of insulation from each end of #70 Wire, and from the unlooped end of #68 Wire. Wind together the wire ends of #55 Light (left one only), remaining end of #68 Wire and one end of #70 Wire to form a "pigtail". Slip the 1/2" dia. Electrical Connector over the above "pigtail" and screw it on tightly making sure none of the "pigtail's" wires are exposed. Similarly, connect remaining end of #70 Wire to wire from #55 Light on right and screw on 3/8" dia. Electrical Connector. Connect 3/16" ID loop end of #68 Wire to remaining terminal of #54 Switch.

- L. Attach 3/16 ID loop end of #67 Wire to side terminal of #42 Solenoid. Connect "push clip" end of #67 Wire to the inside terminal of #41 Switch. Take "push clip" end of #65 Wire and insert onto "outside" terminal of #41 Switch.
- M. Fill #58 Battery with acid per enclosed instructions. Insert Battery into #1S Box between the two vertical 5/16-18 threaded rods. To contain the #35 Throttle Control "cable" insert it between the Battery and threaded rod (on left side) and then lay #57 Strip over the two threaded rods and secure with 5/16-18 Wing Nuts. (Using tape, secure #35 Control "cable" against the "left" threaded rod so "cable" can't rise and come in contact with (+) terminal of Battery).
- N. Insert  $1/4-20 \times 3/4$  Cap Screw into remaining 1/4" ID loop of #61 Wire and insert this into (+) terminal of #58 Battery. Secure with 1/4 WI Washer and 1/4-20 Lock Nut. Mount plastic Terminal Cover over the (+) terminal of Battery note how #61 Wire fits into slot provided for it in the narrow end of Terminal Cover. Insert  $1/4-20 \times 3/4$  Cap Screw into one 1/4" ID loop of #59 Wire and then into the "front" 1/4" hole on Left side of #1N Tower securing with 1/4-20 Lock Nut. (NOTE: Scrape some paint off #1N Tower so that the  $1/4-20 \times 3/4$  Cap Screw makes "Metal to Metal" contact with the Tower.) Insert  $1/4-20 \times 3/4$  Cap Screw into remaining 1/4" ID loop of #59 Wire and insert this into (-) terminal of #58 Battery. Secure above with 1/4 WI Washer and 1/4-20 Lock Nut.
- O. Your wiring is now complete use this opportunity to completely go over the above Assembly Instructions and check for any wiring mistakes. Check that all terminal connections are tight and that they do not touch each other. Cover any questionable terminals with tape provided. (NOTE: To improperly wire your Tractor will run the risk of almost immediate "burn-out" of Alternator, Regulator-Rectifier, etc.) Charge Battery at this time using standard 12 volt Charger.
- 15. Insert  $1/4 \times 1/4 \times 1$ -1/8 Key in slot of Crankshaft on #26 Engine and slide on (Hub to outside) #28 Pulley until it is 3/8" from Engine face. Insert #9 Woodruff Key in 3/4" Shaft protruding from right side of #32 Transaxle and slide on (Hub to inside) #27 Pulley. Using a string or straight-edge, line up the #27 and #28 Pulleys with the already located #24 and #25 Idlers. When satisfied they are aligned and parallel with side of #1A Channel tighten set screw in #27 Pulley. Using Photo provided as your Guide, loop the #29 Belt around the various Pulleys and Idlers. (NOTE: #29 Belt passes between the top of #24 Idler and the underside of #18 Guide.) Now slide down #25 Idler assembly so that the #30 Spring is stretched to a length (measured from "loop" center to "loop" center) of 10-3/4" - tighten the  $3/8-16 \times 1-3/4$  Cap Screw. (NOTE: To get fine adjustment of clutching action you must rely on proper setting of #25 and 24 pulleys. To decrease the slack in the #29 Belt (when you have the #1PPedal depressed) you must lower the #25 Pulley down its slot in #1X Guard. To increase the slack, you must raise the #25 Pulley in its slot. If adjusting the #25Pulley does not give sufficient slack, you can slide the #24 Pulley down its slot for even further slack adjustment). At this time check that #18 Guide is approximately 1/4" above the back side (outside) of #29 Belt when Belt is under spring tension - if not, loosen 3/8-16 x 2½ Cap Screw on #24 Idler, set #18 Guide and retighten Cap Screw.
- 16. Slide 3/8 Lock Washer over each end of two 3/8-16 x 3/4 Cap Screws and insert them into the two 3/8 holes in #40 Belt Release. Slide #28 Pulley 1" away from Engine face and align the two Cap Screws with the two "forward" 3/8 threaded hole s in Engine face, tighten both Cap Screws. Slide #28 Pulley back keeping it 1/8" away from touching the flat strip on #40 Release. Tighten set screw in #28 Pulley.
- 17. Rotate the #19 Guide so that it is approximately 1/8" above #29 Belt and tighten.

- 18. Insert the MT1800-8R & 8L Right & Left Steering Lever Assemblies into your Tractor. Check photo & drawing and note that the two MT1800-8A Levers emerge forward and above the top edge of #1T Bar. Align the centers of the two MT1800-8C Tubes with the 5/8 holes in the rear of their respective MT1800-2 Plates. Insert MT1800-18 Pivot Shaft to join these two Tubes and two Plates check drawing.
- 19. The MT1800-8R & 8L Steering Assemblies should now rest on the MT1800-18 Shaft and are free to slide left or right. Center the MT1800-8B Tab (on each MT1800-C Tube) over its respective MT1800-20 Drum (on left & right side of Tractor) which you have previously assembled. Determine how many 5/8 WI Washers will be needed between the outside end of each MT1800-8C Tube and its respective MT1800-2 Plate, and between the two MT1800-8C Tubes themselves. Remove MT1800-18 Shaft, insert 5/8 Washers (determined above) and reinsert Shaft secure with Hitch Pin on each end of Shaft.
- 20. Slide adjustable "clevis end" of each MT1800-16 Yoke Assembly onto end of the MT1800-8B Tab of its respective MT1800-8R & 8L Right & Left Steering Lever Assembly. Secure with Clevis Pin and Hitch Pin. Pull back on each MT1800-8A Steering Lever you should be able to pull back approximately 4-1/2" (measured at the end of the lever) before the MT1800-21 Band tightens around the MT1800-20 Drum. If you do not have the (above) 4-1/2" movement of the Levers, you may remove the Hitch Pin and Clevis Pin in the "Clevis" end of MT1800-16 Yoke and screw the "clevis" up or down to adjust for the proper movement of the Levers replace Clevis Pin and secure with original Hitch Pin. (This adjustment is to be made for both the Right & Left Steering Levers.) Slip a MT1800-32 Handgrip over each MT1800-8A Lever.
- 21. Place the MT1800-7 Pan over #1K Rest and align the cluster of four holes in #1K Rest with those in the Tractor's Pan. (NOTE: The four 5/16 holes in the forward edge of Seat Assembly must be aligned with and forward of the four 5/16 holes in the two #1V Floors.
- 22. Slide a 5/16 WI Washer over each end of two  $5/16-18 \times 3/4$  Cap Screws and insert into the two outside holes (of the four aligned above) leave the center two aligned holes empty. Secure underneath with 5/16-18 Lock Nuts.
- 23. Slip 3/8 WI Washer onto ends of four  $3/8*16 \times 1\frac{1}{4}$  Cap Screws and insert them into the four holes in #39 Seat Pan put them in from above the Seat, then slip two 3/8 WI Washers over each Cap Screw. Insert these protruding Screws into the (above) aligned cluster of holes in the Pan and #1K Rest. Secure from below Rest with 3/8-16 Nuts, Lock Washers and 3/8 WI Washers. Tighten all Cap Screws in complete Seat Assembly. Slip Cushion over #39 Seat Pan and pull tight and knot drawstring. (NOTE: Keep edges of Seat Pan behind the extra fabric reinforcements inside cushion.)
- 24. Slip  $3/8-16 \times 1$  Carriage Bolt into the 3/8 square hole in center of #478 Bar. Slip protruding end of Carriage Bolt into single 3/8 hole in #47A Plate and secure with 3/8 WI Washer and 3/8-16 Lock Nut tighten so the #47A Plate can rotate, but not so loose as to cause it to rattle.
- 25. Slide a 5/16 WI Washer over each end of two  $5/16-18 \times 1$  Cap Screws and insert into the two remaining "aligned" 5/16 holes in MT1800-7 Pan (Step 21 above).
- 26. Slip each "slotted" end of #47B Bar over the protruding end of its respective  $5/16-18 \times 1$  Cap Screw secure each end with a 5/16 WI Washer and 5/16-18 Lock Nut. NOTE: #47A Plate must be toward the rear and the  $3/8-16 \times 1$  Carriage Bolt must be pointing rearward. (Check that each  $5/16-18 \times 1$  Cap Screw is in the center of its respective slot in #47B Bar; then tighten the two 5/16-18 Lock Nuts).

## Check your assembly:

- A. The reason for the #47 Plate & Bar Assembly is to prevent the operator from pulling both MT1800-8 Steering Brake Levers back at the same time; to do so would overload the Transaxle and shear the axle keys.
- B. As you pull back either Steering Lever you will notice that it will hit the underside of its respective "ear" of #47A Plate and begin to rotate the Plate upward; the other "ear" of the Plate will simultaneously rotate downward toward the other Steering Lever and will block it from being pulled up hence only one Steering Lever can be pulled fully back at a time.
- C. NOTE: With one Steering Lever pulled fully back (a tight braked position) the other Steering Lever should still be able to rise up about 1/8" the other "ear" of #47A Plate should never be "dead tight" against the Steering Lever which isn't being pulled! (You can adjust for this 1/8" clearance by loosening the two  $5/16-18 \times 1$  Cap Screws and raising or lowering the #47B Bar as needed retighten 5/16-18 Lock Nuts.)
- 27. Take MT1800-5L Left Support Assembly and insert its MT1800-5A Rod into the #1GG Tube of #1V Floor on left side of Tractor Frame. Secure end of rod with Hitch Pin. (NOTE: Check your assembly against the drawing and make sure you are using the MT1800-5L and not the MT1800-5R Support MT1800-5B Plate should be "face up".)
- 28. Slide MT1800-4B Rod of MT1800-4L Left Fender Assembly all the way into the #1GG Tube on underside of #1W Rest on left side of Tractor Frame. Secure end of Rod with Hitch Pin. (NOTE: "rear end" of MT1800-4L Fender fits above the (above) mounted MT1800-5L Support.
- 29. Take MT1800-6L Left Wall and mount the row of four slots in its lower edge over the line of four 5/16 holes in rear of MT1800-4L Left Fender. Slide the top edge of the Left Wall under the (above) mounted MT1800-7 Pan and align its three slots with the Pan's three 5/16 holes.
- 30. Slide one 5/16 WI Washer over the end of each of eight  $5/16-18 \times 3/4$  Cap Screws. From the top, insert these into the two rows of aligned "slots & holes in the (above) Wall Fender assembly. Insert the eighth Cap Screw into the remaining 5/16 hole joining the Left Fender to its Left Support. Secure all Cap Screws below with 5/16-18 Nuts, Lock Washers & WI Washers. Complete this assembly for both sides.
- 31. Mount the MT1800-4C Cover over the "notch" opening of its respective Left or Right Fender and align the four 5/16 holes in the Cover with its mating holes in the Fender. NOTE: "folded edge" of Cover should be facing down and next to TM12-1V Floor (on each side) and the "clipped corner" of the Cover should be forward. Secure in place with  $5/16-18 \times 3/4$  Cap Screws, WI Washers and Lock Nuts.
- NOTE: Notches have been cut into your MT1800-4A Left and Right Fenders to allow clearance for the use of our MWL-72 Loader. For those who do not use the Loader it is mandatory (for safety) that you cover these openings with the MT1800-4C Covers provided.
- 32. Take Gas Tank and Mounting Bracket assembly and mount onto #1AA and #1BB Bracket and Brace. Note how the four holes and slots line up with each other. Insert each of three  $5/16-18 \times 3/4$  Cap Screws into 5/16 WI Washers and then into the (above) aligned slots and holes. Secure each Cap Screw on other side with 5/16 WI Washer and 5/16-18 Lock Nut.

NOTE: Slide 5/16 WI Washer onto one 5/16-18 x 1 Cap Screw and insert it into a "coated" Wire Clip (pass Wires #64, 65, 66B and 66D through it) and then insert it into the top left aligned slot and hole of Gas Tank Bracket & #1AA Bracket. Secure below with 5/16 WI Washer and Lock Nut.

- 33. Take #44 Gas Line and slip a Pinch Clip over each end and slide up about 1". Slip one end of the Gas Line over the "tapered stepped" outlet on "pet cock" on underside of Gas Tank. Connect the other end of Gas Line to the "tapered stepped" inlet on left top side of Engine Carburetor. On both ends push Gas Line on as far as it goes. With pliers, carefully compress the ends of the Pinch Clips and slide them to approximately 3/8" from each end of Gas Line.
- 34. Slide one 1/2 WI Washer over the end of each of two 1/2-13 x 1 Cap Screws. Align the two 1/2" holes in #1L Dash with the two 1/2" holes in rear of #2A Top of #2 Hood. Insert 1/2 WI Washer between Hood and Dash of above aligned holes. On each side insert 1/2-13 x 1 Cap Screw with WI Washer through above alignment, secure inside with 1/2-13 Lock Nuts tighten to eliminate vibration, but free enough for Hood to be raised easily. Remove backing from #45 Rubber Strip and apply neatly to underside of #2C Bottom keeping it just forward of the 3/8" wide slot. Rotate Hood downward and engage the #1Y Pin in the 3/8" wide slot in #2C Bottom and secure inside with Hitch Pin.
- 35. Slide 3/8 WI Washer on each end of one 3/8-16 x 5 Cap Screw and one 3/8-16 x 3 Cap Screw. Insert the 5" Cap Screw (from the outside) into the forward 3/8 hole in #3B Cover, and the 3" Cap Screw into the single rear hole of #3A Channel. Slip a #13 Tube over protruding end of 5" Screw, and the #14 Tube over end of single 3" Screw. Apply this assembly over the #29 Belt engaging the 5" Screw into the top rear threaded hole in Engine case, and 3" Screw into the single 3/8 slot in #1X Guard and secure behind with 3/8 WI Washer and 3/8-16 Lock Nut.
- 36. Slip 1/2 ID Handgrip on end of gear shift handle. Your Magnatrac is now complete and ready for a final check. With your Tractor on blocks it is advisable to remove the Engine spark plug and turn the Engine over by hand and check the Clutch-Brake mechanism for proper action. At this time, starting at bottom center of front Grill, you may now slowly slide on the black plastic edging along the entire front edge.

  NOTE: Work slowly around corners as the edging will make smooth corners if you take your time. When you get back to the bottom cut off remaining edging so you will end up tightly "butting" the two ends of edging together. (NOTE: Using the above procedure, put edging around the forward edge of #2F Scoop and around #1V Floor and mating Pan).
- 37. With spark plug replaced, and power train checked out; you now can proceed to start your Tractor. Fill gas tank with regular gas and fill Engine with oil per manufacturer's recommendations. With Transaxle in neutral position and #1P Pedal depressed completely (it's advisable to lock Parking Brake each time you start) pull out Throttle Control (Choke also if cold). Insert Key in #51 Switch and turn clockwise (the Switch will activate the starter). When the Engine starts, release the Key.
- 38. At this point you must now check the adjustment of the #41 Interlock Switch. With the #1P Pedal fully depressed, the "leaf" of #46 Spring will rise to contact and depress the plunger on the lower end of #41 Switch: (Make no adjustments with Engine running.)
- A. <u>NOTE</u>: If the Starter does not activate with #1P Pedal fully depressed, then the plunger on #41 Switch is not being depressed by #46 Spring sufficiently to complete the electrical circuit. Correct this by loosening "upper nut" on the threaded stem of #41 Switch and pushing the #41 Switch down take up the "slack" by locking tight with the "lower nut".

- B. NOTE: If the Starter is able to be activated in any position other than with the #1P Pedal fully depressed, then the "leaf" of #46 Spring is depressing the #41 Switch too soon. Correct this by loosening the lower nut of #41 Switch and pulling up on #41 Switch take up the "slack" by locking tight with "upper nut" on threaded stem of #41 Switch.
- C. <u>NOTE</u>: Slip rubber "boot" over end of plunger of #41 Switch line up "boot" on Groove of plunger and end of threaded stem.

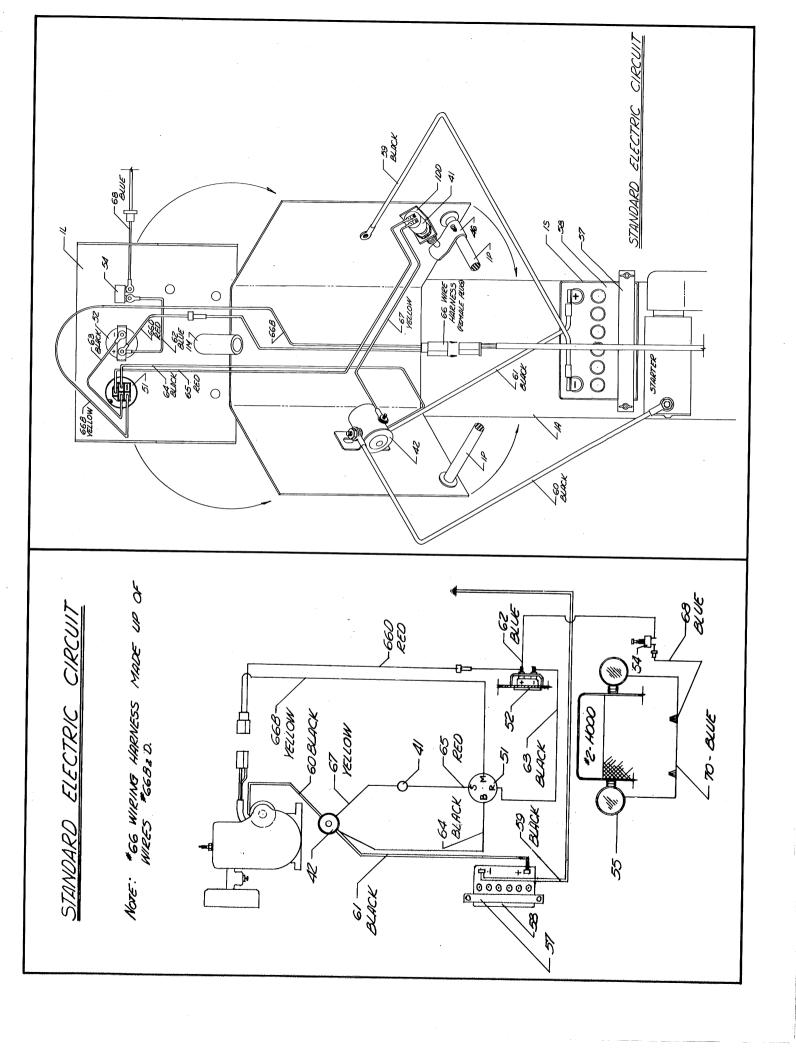
# NOTE: Read Operator's Manual before operating Tractor.

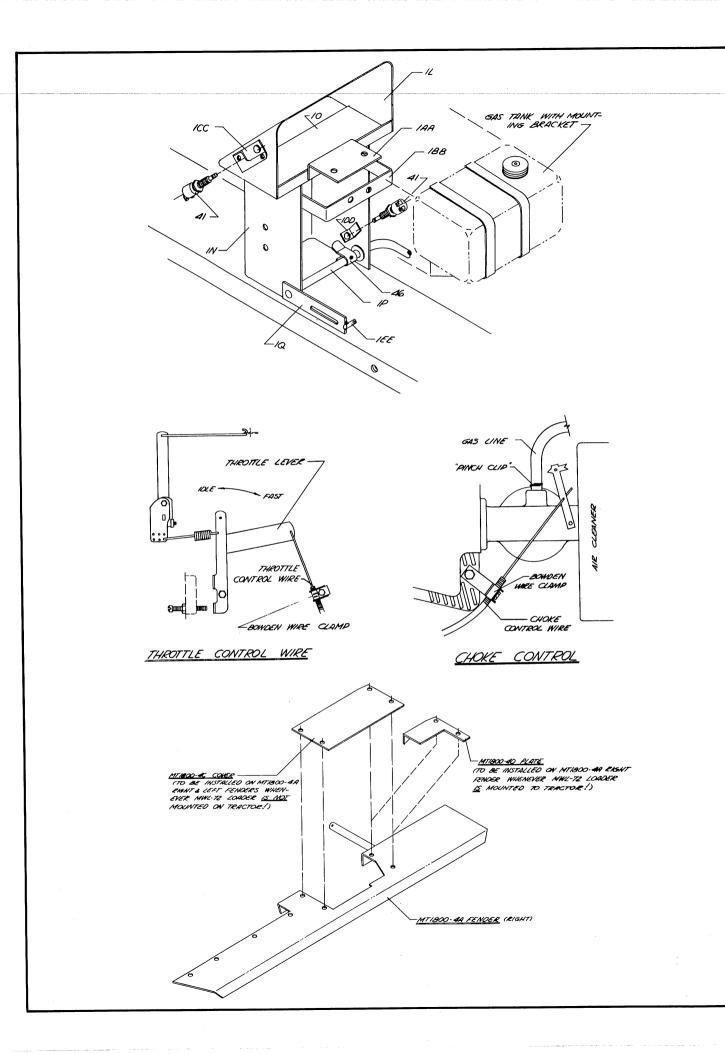
39. With Engine running, set the respective Throttle and Choke controls for smooth Engine operation at the particular temperature you're working at. You may "lock" both Throttle and Choke Controls (in the position you have selected) by rotating the Handles 1/4 turn clockwise. They are "unlocked" by a 1/4 turn counter-clockwise. NOTE: DO NOT "over-tighten " or "over-loosen" these Controls - a 1/4 turn in either direction is sufficient. With left foot still depressing #1P Pedal select gear you wish and release Pedal slowly. (NOTE: Initially the #29 Belt may grab or jump as the Belt is new and has not broken in. Hence it is advisable to start your Tractor in an open area away from people and obstacles and using the lower gears (1st and 2nd) drive around to break the belt in and at the same time get the "feel" of your new Tractor). With the Tractor moving you can turn left or right simply by pulling back gradually on the appropriate Right or Left Steering Brake Handle - the harder you pull on the selected Handle, the "faster & sharper" the turn up to the point where the Track stops dead and begins to pivot around it. NOTE: Never pull both Steering Brake Handles back at the same time. This locks up and overloads the Transaxle and can cause "shearing" of the Keys in the Axles!

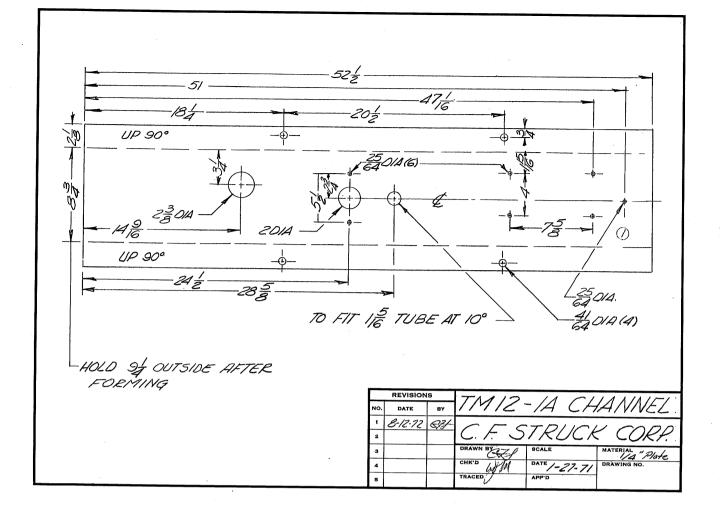
When you wish to stop your Tractor, depress the #1P Pedal completely and you will come to a positive "braked" stop. Shift gear shift to neutral position, release #1P Pedal slowly and Tractor will assume an idling position. For added safety it is suggested that you always stop the Engine, remove the Ignition Key and set your parking brake (see Step #7) each time you leave the Tractor unattended.

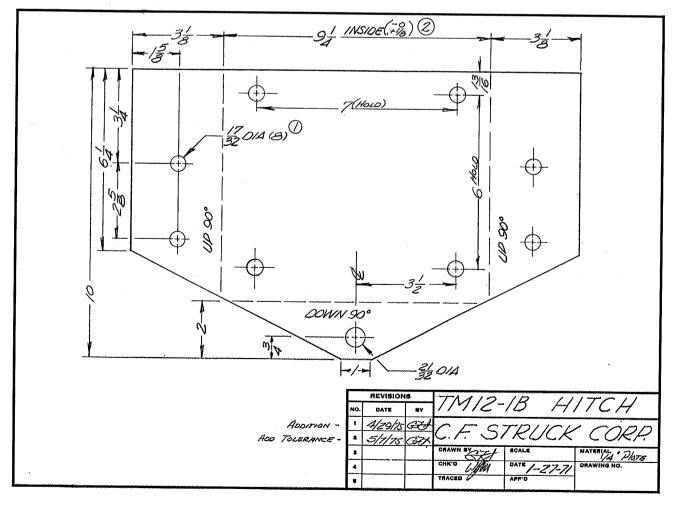
Maintenance: The following items should be checked each time you start your Tractor.

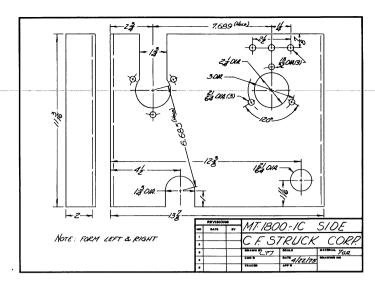
- 1. Gas and Oil should be full and clean check for any leakages.
- 2. Grease Zerk fittings in each of the #9 Front Idler Sprockets, each of the #11 Rear Drive Sprockets, and lastly in each of the #12 Axles every four hours, or more often when working in wet, gritty, or muddy conditions.
- 3. Check air cleaner on Engine and service per manufacturer's recommendations.
- 4. Check #29 Drive Belt for undue wear or fraying a sign of possible misalignment or improperly adjusted Pulleys or allied components.
- 5. Check Battery water level monthly.
- 6. Check that Throttle & Ghoke controls operate freely without binding.
- 7. Give a "once over" to the complete Tractor looking for loose or misadjusted parts. Unusual vibration or rattling is always a sign of trouble; hence if these conditions appear stop the Tractor immediately and find out and correct the problem before any further operation of Tractor.

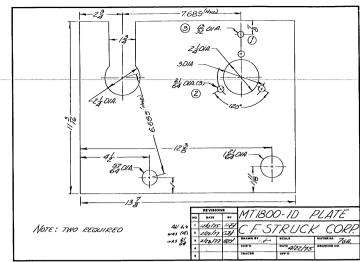


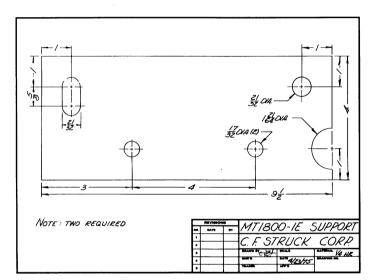


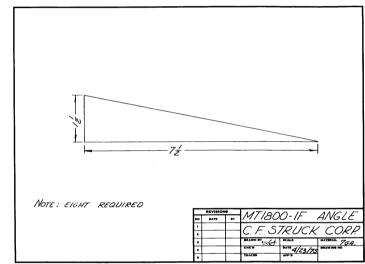


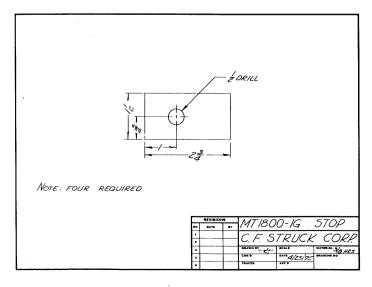


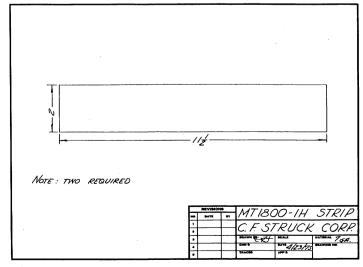


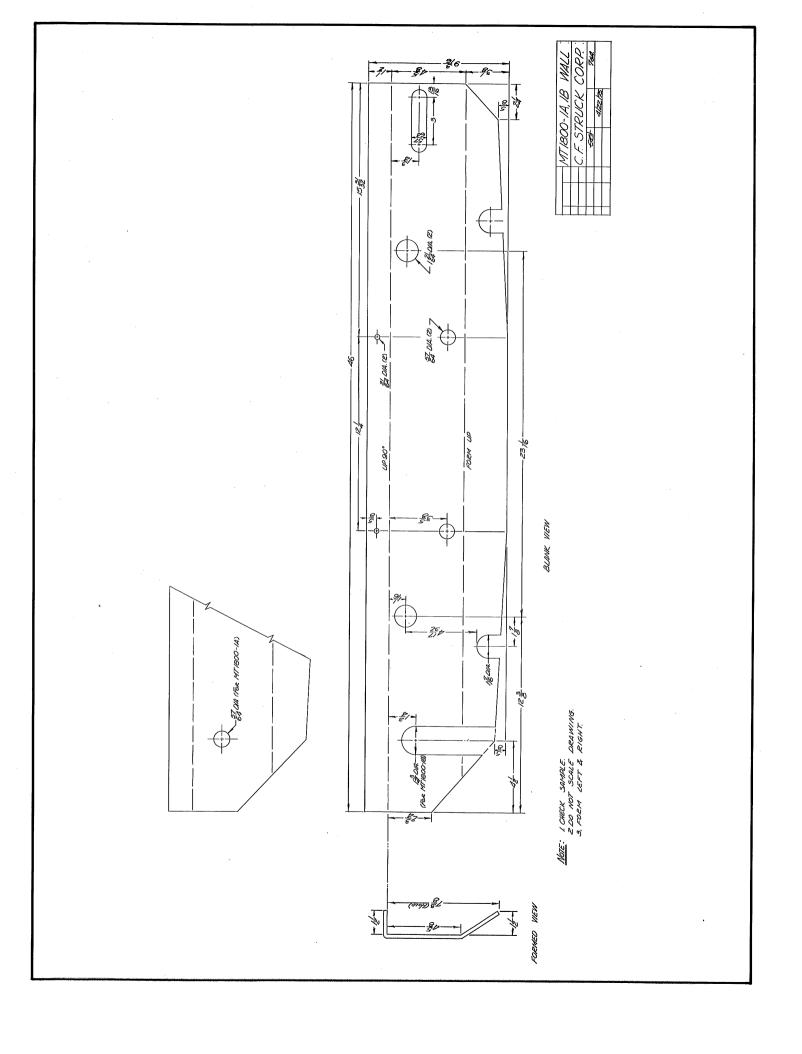


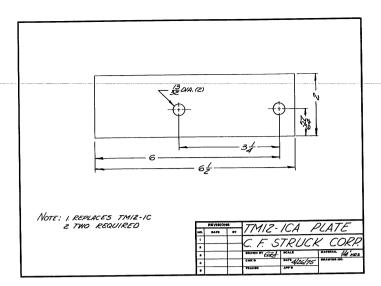


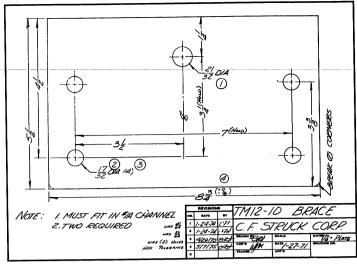


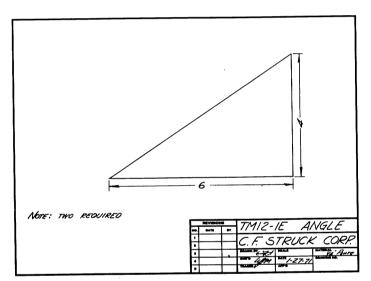


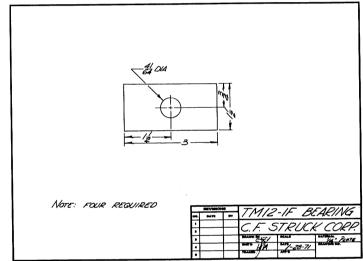


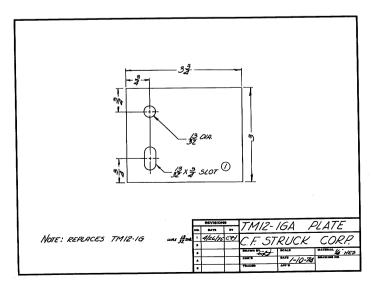


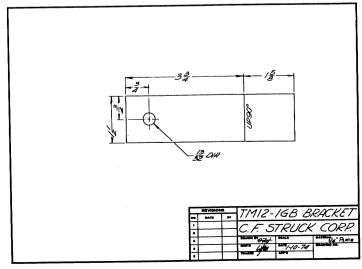


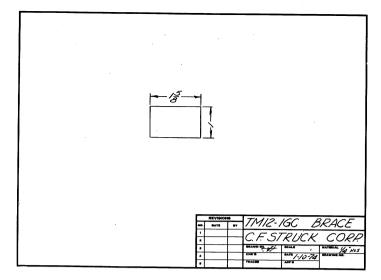


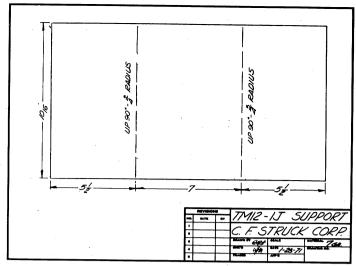


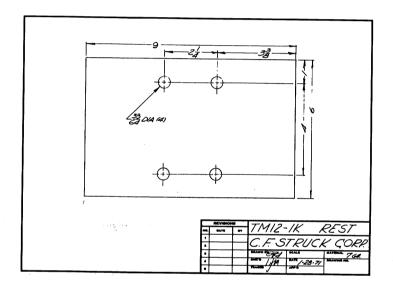


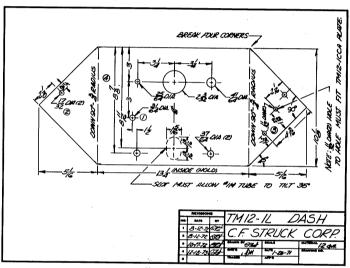


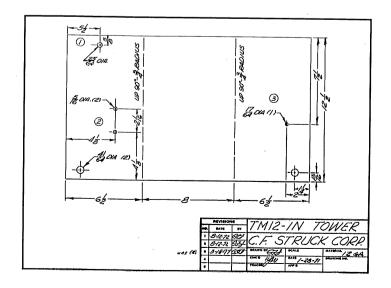


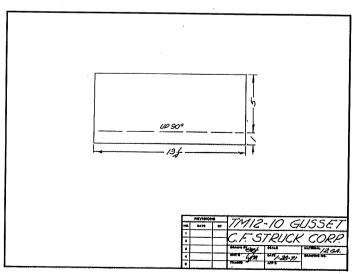


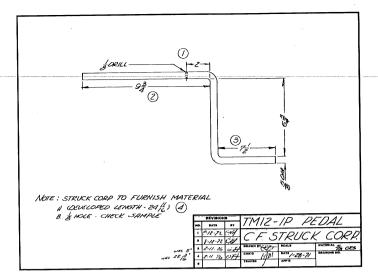


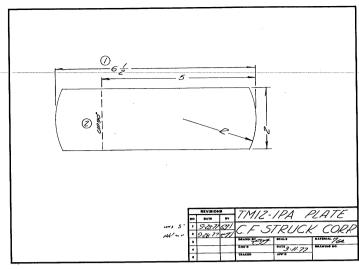


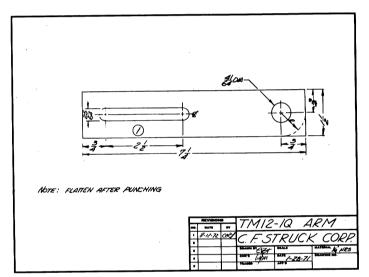


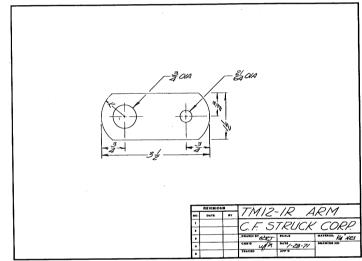


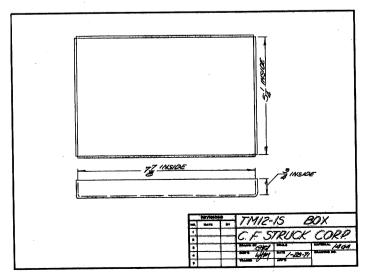


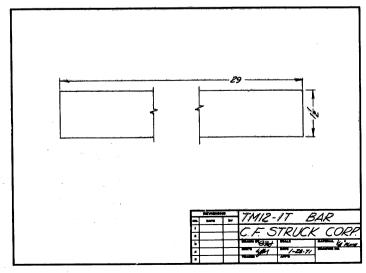


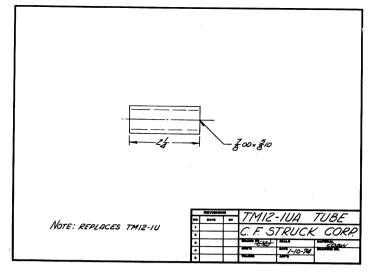


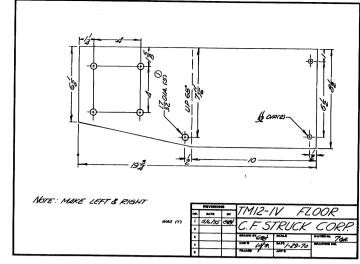


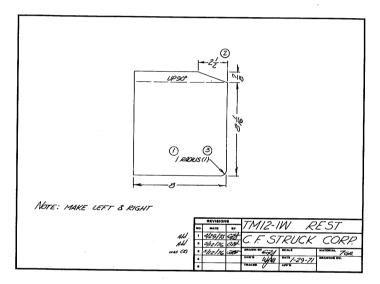


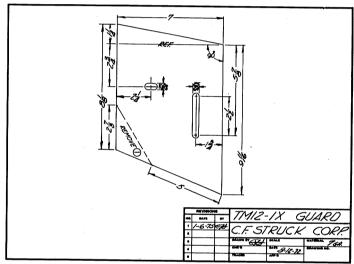


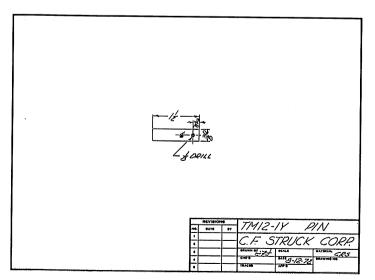


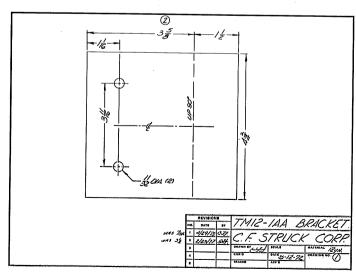


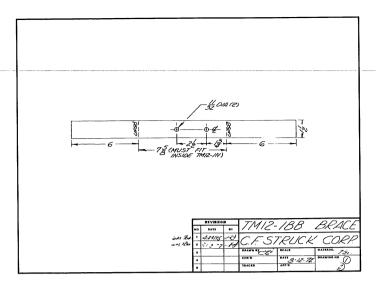


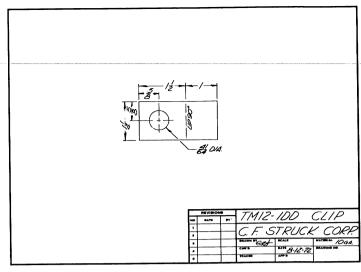


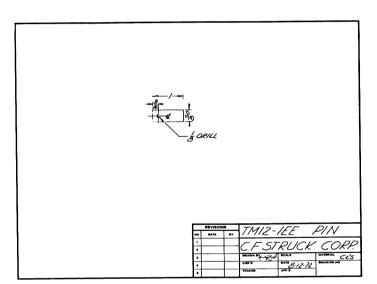


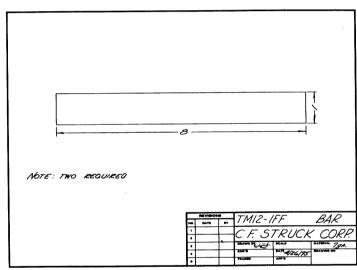


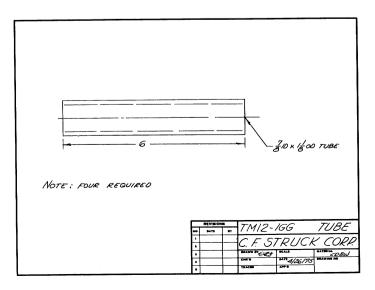


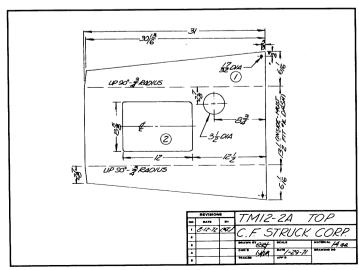


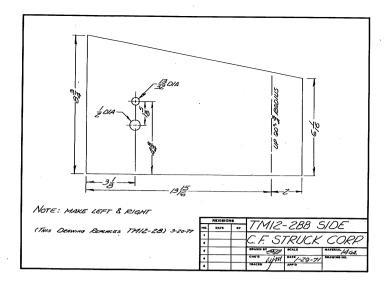


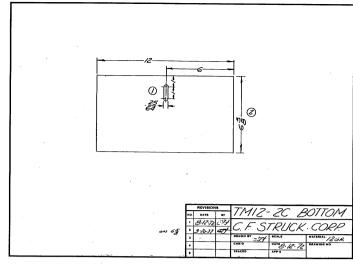


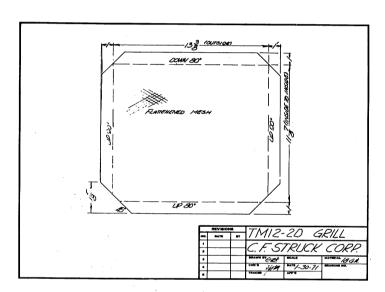


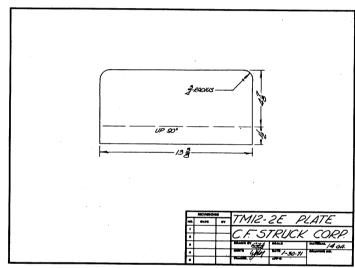


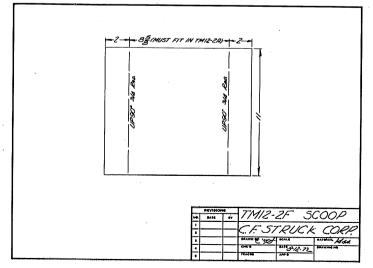


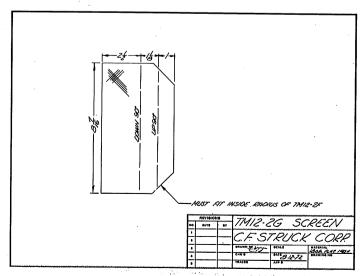


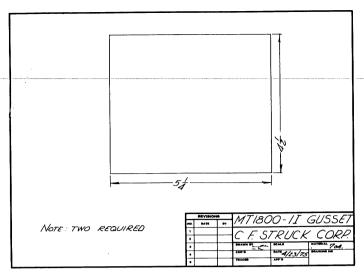


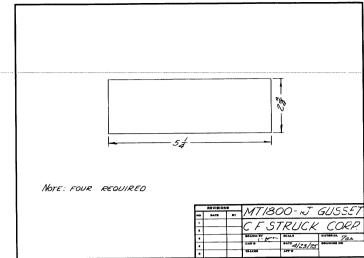


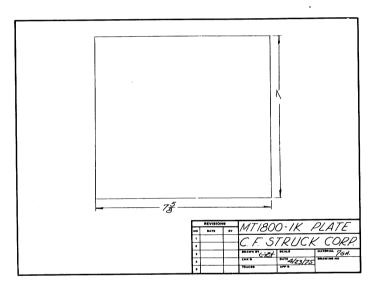


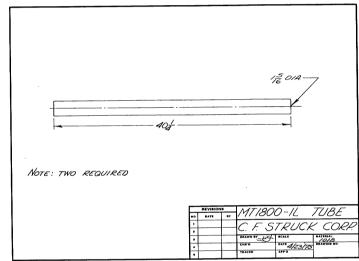


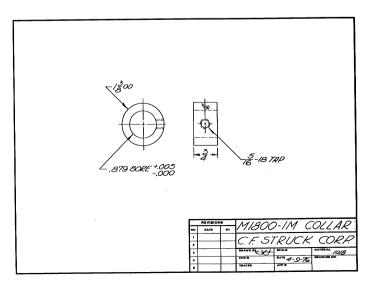


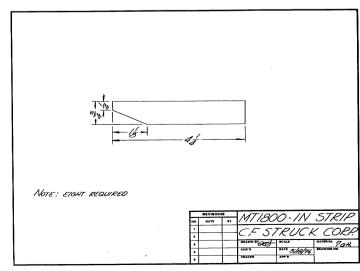


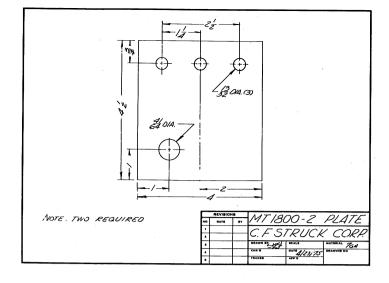


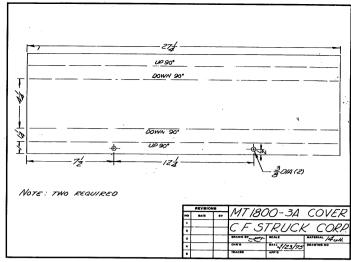


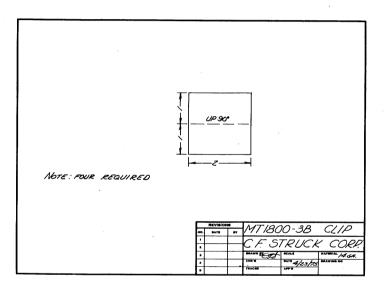


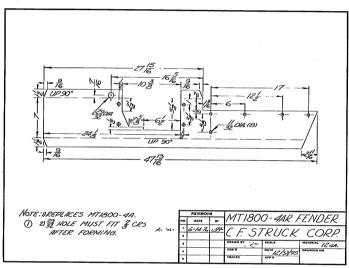


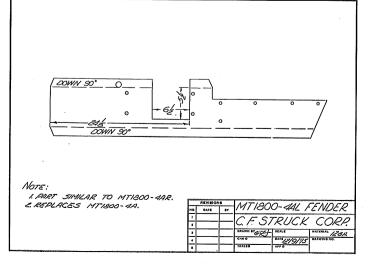


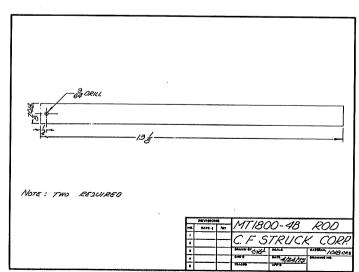












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